

Amendments to the Claims:

1 - 20. (canceled)

21. (currently amended) A solid state current distribution system for DC voltages, the system comprising:

~~an~~ a single electronic solid state switch for ~~current~~ switching current from an input circuit powered by a voltage source to an output circuit connected to a load, ~~the electronic solid state switch having output terminals,~~

a first copper support connected to the electronic switch and connectable to the input ~~circuit,~~ and circuit,

a printed circuit board ~~connected to,~~ and for the control of the single electronic solid state switch,

a second copper support ~~connected to said output terminals and to be connected~~ connectable to the output circuit,

wherein

the single electronic solid state switch is directly electrically connected to the first copper support,

the single electronic solid state switch has input terminals connected to the printed circuit board,

the single electronic solid state switch has output terminals connected to the second copper support,

the printed circuit board has the standard size of a mechanical fuse, and

the printed circuit board and the first and the second copper supports are arranged in such a way the system presents a substantially flat or planar structure.

22. (previously presented) A solid state current distribution system according to claim 21, wherein the electronic solid state switch is soldered to the first copper support.

23. (previously presented) A solid state current distribution system according to claim 21, wherein the output terminals are soldered to the second copper support by means of U shaped leads.

24. (previously presented) A solid state current distribution system according to claim 21, wherein the printed circuit board includes an electronic circuit with a first selector to be set to program a range of current and a second selector to be set to program a time delay to be used if loads have an inductive component.

25. (previously presented) A solid state current distribution system according to claim 21, further comprising a reset connected to the electronic solid state switch for a manual resetting of the system.

26. (previously presented) A solid state current distribution system according to claim 21, wherein the printed circuit board includes a microcontroller and a memory programmed for system management and recording parameters.

27. (previously presented) A solid state current distribution system according to claim 21, configured as autonomous module.

28. (previously presented) A solid state current distribution system according to claim 26, configured as a module connectable in a parallel mode with one or more similar modules

29. (previously presented) A solid state current distribution system according to claim 27, wherein the module is programmable for different ranges of current.

30. (previously presented) A solid state current distribution system according to claim 21, wherein the printed circuit board is provided with a connector for interfacing

with an external computer to control and remotely monitor the current distribution system.

31. (previously presented) A solid state current distribution system according to claim 21, further comprising a heat dissipator associated with the solid state switch.

32. (previously presented) A solid state current distribution system according to claim 21, wherein the input circuit includes a copper support bar, the copper support bar and the first and second copper supports are shaped and dimensioned as heat dissipators.

33. (previously presented) A solid state current distribution system according to claim 21, to be used in electrical installations for naval or industrial applications.

34. (previously presented) A solid state current distribution system according to claim 22, wherein the output terminals are soldered to the second copper support by means of U shaped leads.

35. (previously presented) A solid state current distribution system according to claim 22, wherein the printed circuit board includes an electronic circuit with a first selector to be set to program a range of current and a second selector to be set to program a time delay to be used if loads have an inductive component.

36. (previously presented) A solid state current distribution system according to claim 22, wherein the printed circuit board includes a micro-controller and a memory programmed for system management and recording parameters.

37. (previously presented) A solid state current distribution system according to claim 28, wherein the module is programmable for different ranges of current.

38. (previously presented) A solid state current distribution system according to claim 22, wherein the printed circuit board is provided with a connector for interfacing with an external computer to control and remotely monitor the current distribution system.

39 - 41. (canceled)

42. (new) A solid state current distribution system according to claim 21, wherein the first and the second copper supports are axially aligned and have main flat surfaces extending parallel to the printed circuit board.

43. (new) A solid state current distribution system according to claim 21, wherein the electronic solid state switch is bent substantially at 90° in such a way that its head rests on the first copper support.